

CLAIMS

1. A furnace system for the thermal treatment of elongated material, especially a roller hearth furnace, comprising a conveying unit which supplies the material, comprising a furnace having a gastight-closable charging opening and comprising a lock chamber having a gastight-closable charging opening, which connects the furnace to the conveying unit, wherein the lock chamber receives the material in batches via the charging opening and feeds into the furnace,

characterised in that the furnace is arranged outside the conveying direction of the conveying unit and the lock chamber is displaceable from a first position in which it receives the material supplied to it from the conveying unit, into a second position in which it docks with its charging opening onto the charging opening of the furnace in a gastight fashion.

2. The furnace system according to claim 1, characterised in that the furnace is arranged alongside adjacent to the conveying unit and the lock chamber is substantially slidable perpendicular to the conveying direction, wherein the material is fed into the furnace in a direction opposite to the conveying direction.
3. The furnace system according to claim 2, characterised in that the lock chamber is mounted on a carriage which can be slid on rails.

4. The furnace system according to any one of claims 1 to 3, characterised in that the furnace has a gastight-closable discharge opening opposite to the charging opening, a second lock chamber with a gastight-closable charging opening and a second conveying unit, wherein the second lock chamber is displaceable from a first position in which it docks with its charging opening onto the discharging opening of the furnace in a gastight fashion and receives the material discharged from the furnace, into a second position in which it supplies the material to the second conveying unit.
5. The furnace system according to claim 4, characterised in that the furnace has a heating zone and a cooling section arranged therebehind.
6. The furnace system according to any one of claims 1 to 5, characterised in that the lock chamber is constructed as a vacuum chamber.
7. The furnace system according to claim 6 characterised in that before its charging opening the furnace has a docking unit onto which the vacuum chamber docks and via which the lock chamber can be evacuated and filled with protective gas.
8. The furnace system according to any one of claims 1 to 7 characterised in that the charging opening of the furnace can be closed in a gastight fashion by a pull door.